

DIPLOMA IN ACCIDENT AND EMERGENCY CARE TECHNOLOGY

SECOND YEAR

PAPER I – PATHOLOGY, MICROBIOLOGY, PHARMACOLOGY

Q.P. Code : 841011

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Define pharmacokinetics. Explain in detail about the various route of administration.
2. Describe in detail about the various culture method. Explain in detail anaerobic culture method with neat diagram.
3. Define innate immunity. Discuss briefly about the cell mediated immunity.

II. Write notes on:

(10 x 5 = 50)

1. Elaborate in detail about the chemical mediators of inflammation.
2. Explain the different types of culture media in detail.
3. Describe the clinical features of tumors
4. Name some of carcinogenic agent and explain their cellular interaction.
5. Enumerate the adverse drug reaction
6. Describe in briefly about the dry heat sterilization with diagram.
7. Discuss in detail about the pathogenesis and lab diagnosis of malarial parasites.
8. Explain in detail about the bacterial structure with neat diagram.
9. Define necrosis. Explain its types of necrosis in detail.
10. Describe in detail about the cellular adaptation and its types.

III. Short Answers on:

(10 x 2 = 20)

1. Define cell injury & cell death.
2. Define acute inflammation.
3. Define acquired immunity.
4. Define capsule.
5. Give two examples of Aldehyde used in disinfection.
6. Define Nosocomial infection.
7. Give two disadvantages of oral drug administration.
8. Define oral bioavailability.
9. Define benign tumors & malignant tumors.
10. Define immunoprophylaxis.

[LF 0212]

AUGUST 2014

Sub. Code: 1011

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Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Cellular response, adaptation, injury and cell death.
2. HIV- AIDS – symptoms, mode of transmission, diagnostic, treatment and prevention.
3. Define and classify - Adverse drug reaction.

II. Write notes on:

(10 x 5 = 50)

1. Autoimmune disorders.
2. Morphologic patterns of acute inflammation.
3. Cell injury and Necrosis.
4. Autoclave with diagram.
5. Morphology of bacteria.
6. General properties of viruses.
7. Growth and multiplication of bacteria.
8. Chemical methods of sterilization.
9. Main sources of drugs.
10. Parenteral route of administration.

III. Short Answers on:

(10 x 2 = 20)

1. Define Hyperplasia and Metaplasia.
2. Define Antigen and Antibody.
3. Define active and passive immunity.
4. Advantage and disadvantage of oral route of administration.
5. Drug allergy.
6. Elimination of drug.
7. Filtration methods of sterilization.
8. Bacterial flagella.
9. Disinfection.
10. Draw microscope and mark the parts.

[LG 0215]

FEBRUARY 2015

Sub. Code: 1011

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Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. General features of Inflammation. Add notes on acute inflammation.
2. Various morphology and physiology of bacteria.
3. Define and Classify the Route of Drug administration.

II. Write notes on:

(10 x 5 = 50)

1. Chronic inflammation.
2. Clinical features of tumors.
3. Cellular stress response.
4. Normal microbial flora of human body.
5. General properties of viruses.
6. Autoclave with the diagram.
7. Overview of bacterial taxonomy.
8. Main sources of drugs.
9. Drug absorption.
10. Cardiovascular disorders – adverse drug reaction.

III. Short Answers on:

(10 x 2 = 20)

1. Define apoptosis and Necrosis.
2. Benign neoplasia.
3. The nomenclature of neoplasia.
4. Filtration method of sterilization.
5. Grams stain procedure with diagram.
6. Bacterial flagella.
7. Causes for cellular injury.
8. Disinfection.
9. Two major classes of etiological factors.
10. Plasmodium spp.

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Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. (a) Define pharmacokinetics.
(b) Enumerate the various pharmacokinetic processes.
(c) Describe drug metabolism in detail.
2. (a) Enumerate the hallmarks of inflammation.
(b) Elaborate on the chemical mediators of inflammation.
(c) Explain chronic inflammation.
3. (a) Enumerate on ANY TWO culture media.
(b) Describe ANY THREE general properties of viruses.
(c) Write on Ziehl-Neelsen staining.

II. Write notes on:

(10 x 5 = 50)

1. Explain ANY FIVE clinical features of leukemia.
2. Enumerate on methods of Immunoprophylaxis with examples.
3. Explain teratogenicity with appropriate examples.
4. Describe the life cycle of *Wuchereriabancrofti*.
5. Explain ANY THREE advantages and TWO disadvantages of Intravenous route.
6. Explain the role of immune system in disease with examples.
7. Explain the differences between benign and malignant tumors.
8. Describe the pathogenesis of AIDS infection.
9. Explain the types of drug induced hypersensitivity with examples.
10. Elaborate on cellular apoptosis.

III. Short Answers on:

(10 x 2 = 20)

1. Enlist TWO infections caused by the various Herpes viruses.
2. Write briefly on formaldehyde as a preservative and a disinfectant.
3. Name TWO carcinogenic agents.
4. Name TWO drugs used as a transdermal therapeutic system.
5. Write ANY TWO features of inhalational route.
6. Name ANY TWO Ribo Nucleic Acid (RNA) viruses.
7. Write ANY TWO differences between gram positive and gram negative bacteria.
8. Name ANY TWO cellular adaptations in growth and differentiation.
9. Give TWO examples of idiosyncratic reactions.
10. Define bioavailability. Write down TWO drugs with high first pass metabolism by oral route.

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Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Classify Penicillins. Write the mechanism of action, uses and adverse effects of Penicillin G.
2. Define sterilization. Enumerate the various methods of Sterilization. Discuss the methods of sterilization by moist heat.
3. Define Gangrene. Name the types of gangrene. Write in detail about gas gangrene.

II. Write Notes on:

(10 x 5 = 50)

1. Clinical features and Lab diagnosis of Leptospirosis.
2. Role of Health care worker in interrupting transmission of infection.
3. Complications of Blood Transfusion.
4. Sedative-Hypnotics.
5. Erythroblastosis foetalis.
6. Management of Anaphylactic Shock.
7. Endogenous Pigments.
8. Free radicals and Antioxidants.
9. Explain teratogenicity with appropriate examples.
10. Describe the life cycle of *Wuchereriabancrofti*.

III. Short Answers on:

(10 x 2 = 20)

1. Define calcification. Name the types of calcification.
2. What is Dysplasia?
3. Name three fungi causing systemic infections.
4. Define antidote. Give 2 examples.
5. Principle of treatment of Poisoning.
6. Drugs causing Hepatotoxicity.
7. Name the bacteria causing food poisoning.
8. Chemoprophylaxis.
9. Lewi's Triple Response.
10. What is the composition of Ringer Lactate?